



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,914	04/20/2001	John Saarinen	TRW(M)5722	2240

26294 7590 04/30/2003

TAROLLI, SUNDHEIM, COVELL, TUMMINO & SZABO LLP
1111 LEADER BUILDING
526 SUPERIOR AVENUE
CLEVEVLAND, OH 44114-1400

EXAMINER

WILLIAMS, ERIC M

ART UNIT PAPER NUMBER

3681

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,914

Applicant(s)

SAARINEN ET AL.

Examiner

Eric M Williams

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the papers filed 02-04-2003 for serial number 089/839,914.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borman ('865) in view of Luibrand Patent No. ('276), Bullard et al. ('814), and Yamaguchi ('968).

Borman (Fig 1) teaches a reservoir (10) with at least one pump (42) connected with the reservoir for pumping fluid between the reservoir and a fluid system (46). Borman discloses (column 1 lines 5-23 and column 2 lines 35-45) the fluid system being used with automotive vehicles such as automatic transmissions, power steering systems and power brake systems whereby a single reservoir (10) may be used for all the systems. Therefore the fluid system (46) of Borman encompasses drawing hydraulic fluid, using the pump (42), to a hydraulic fluid operated automatic transmission for transmitting motive power from an engine of a vehicle to drive wheels of the vehicle and a power steering gear for effecting movement of steerable wheels of the vehicle.

Borman does not teach a steering gear with a fluid motor. Luibrand (Fig. 1) discloses a power steering system with a fluid motor (24) assisting the output movement of the steering system. It would have been obvious to one of ordinary skill in the art at the time of this invention to modify Borman such that the power steering gear fluid system included a fluid motor, in view of Luibrand, to assist the output movement of the steering mechanism.

Borman also does not disclose a cooler for cooling the hydraulic fluid with the one pump being operative to pump hydraulic fluid between the reservoir and the cooler. However, Bullard et al. (Fig. 1) discloses a cooler (90) for cooling the hydraulic fluid of an engine (16) and transmission system (10). Therefore it would have been obvious to one of ordinary skill in the art at the time of this invention to modify Borman's single reservoir for dual fluid systems such that the system contains a cooler for cooling the hydraulic fluid, in view of Bullard, to ensure proper cooling of the system.

Borman also does not disclose a filter for filtering fluid to the automatic transmission and steering gear. Yamaguchi (Fig. 1) discloses a fluid system with fluid reservoir with a single suction filter (S/F) located at the output port going to two pumps and the filter being shared by dual systems. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Borman such that the single reservoir for the two systems had a filter on the output port of the pump to filter the fluid pumped to the automatic transmission and to the steering gear, in view of Yamaguchi, to reduce the number of harmful particulates in the fluid.

4. Claims 2, 3, 9, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borman ('865) in view of Luibrand Patent No. ('276), Bullard et al. ('814), and Yamaguchi ('968) as applied to claims 1 and 8 above, and further in view of Shelhart ('282) and Hancock ('241).

Borman specifically discloses a single reservoir (column 2 lines 28-45) to a fluid system (46), the fluid system which can be any of the fluid systems commonly used for automotive vehicles, such as an automatic transmission, power steering, power brakes or a combination thereof. Therefore, Borman's fluid system (46) contains all the elements of an automatic transmission system and a power steering system. So although Borman lacks any explicit disclosure of a separate automatic transmission pump and power steering pump, it would have been obvious to one of ordinary skill in the art at the time of this invention to modify the fluid system of Borman to include a transmission pump, as taught by Bullard (98), and a power steering gear pump (12), as taught by Luibrand, so that the fluid system includes all the elements of each individual fluid system in the combination.

Bullard and Luibrand do not disclose the exact operating pressures of the systems, but Hancock (column 13 lines 60-69 and column 14 lines 1-9) and Shelhart (column 2 lines 54-61) indicate the operating pressures of an automatic transmission pump at a relatively low pressure (150-250 psi) and a power steering pump at a relatively high pressure (900-1000 psi) respectively. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Borman in view of Bullard and Luibrand such that the supply

of fluid to the automatic transmission pump would be at a relatively low pressure and the supply of fluid to the power steering pump would be at a relatively high pressure, further in view of Hancock and Shelhart, to supply the pressure at the required operating pressures.

Regarding claims 3 and 12, Luibrand (Fig. 1) also discloses a plurality of power steering fluid lines for transmitting fluid. It would have been obvious to one of ordinary skill in the art at the time of this invention to modify the system of Borman such that the power steering system had a plurality of power steering lines, in view of Luibrand, for efficient operation of the power steering gear.

Regarding claim 10, Borman in view of Luibrand, Bullard, Shelhart and Hancock lack the teaching of the transmission pump located in line between the reservoir and the power steering pump. It would have also been obvious to one of ordinary skill in the art at the time of this invention to modify Borman as set forth above such that the connection of the transmission pump is in line between the reservoir and the power steering pump since it has been held that the rearranging of parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borman ('865) in view of Luibrand Patent No. ('276), Bullard et al. ('814), and Yamaguchi ('968), Shelhart ('282) and Hancock ('241) and further in view of Hayabuchi et al. ('436).

Borman also discloses a single pump (42) supplying pressure high enough for the desired operation of the fluid system. The fluid system includes

an automatic transmission system and a power steering system. The pump for the single reservoir shared by both systems supplies pressure high enough to operate each fluid system (column 2 lines 28-45). Because Borman's pump pressure is supplied high enough for operation of both systems, the each fluid system disclosure of Borman covers the elements of the fluid system excluding the usage of individual pumps. Borman, however, does not disclose a pressure reducer for reducing the pressure supplied to the automatic transmission.

Hayabuchi (Fig. 1) discloses an automatic transmission supplying pressure to a pressure reducer (943) to reduce the pressure for the required operation of the transmission. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Borman's single reservoir with a single pump such that the pump supplies pressure to a pressure reducer, in view of Hayabuchi, to supply fluid to the transmission at the optimum operating pressure.

6. Claims 5, 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borman ('865) in view of Luibrand Patent No. ('276), Bullard et al. ('814), Shelhart ('282) and Hancock ('241).

Borman in view of Luibrand, Bullard, Shelhart and Hancock disclose all the limitations of claims 5, 6 and 13 as set forth above. Borman in view of Luibrand, Bullard, Shelhart and Hancock lack the teaching of the transmission pump located in line between the reservoir and the power steering pump. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Borman as set forth above such that the connection of the transmission pump is in line between the reservoir and the power steering pump

since it has been held that the rearranging of parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borman ('865) in view of Luibrand Patent No. ('276), Bullard et al. ('814), Shelhart ('282) and Hancock ('241), in further view of Hayabuchi et al. ('436).

Borman in view of Luibrand and Bullard discloses all the limitations of claim 13 as set forth above. Borman discloses a single reservoir with a single pump (42) supplying pressure high enough for the desired operation of the fluid system. The fluid system includes an automatic transmission system and a power steering system. The pump for the single reservoir shared by both systems supplies pressure high enough to operate each fluid system (column 2 lines 28-45). Because Borman's pump pressure is supplied high enough for operation of both systems, the each fluid system disclosure of Borman covers the elements of the fluid system excluding the usage of individual pumps. Borman, however, does not disclose a pressure reducer for reducing the pressure supplied to the automatic transmission. Hayabuchi (Fig. 1) discloses an automatic transmission supplying pressure to a pressure reducer (943) to reduce the pressure for the required operation of the transmission. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Borman's single reservoir with a single pump such that the pump supplies pressure to a pressure reducer, in view of Hayabuchi, to supply fluid to the transmission at the optimum operating pressure.

Response to Arguments

8. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. With respect to the arguments regarding the filter, the new grounds of rejection with the filter taught by Yamaguchi render the arguments moot.

Regarding the claims reciting at least one pump comprising a transmission pump and a power steering pump, the Borman reference explicitly discloses the teaching of supplying fluid to a fluid system, wherein the fluid system can be any of the fluid systems such as an automatic transmission, power steering, power brakes or any combination thereof. Therefore, as mentioned in the above rejection, the fluid system contains all the elements of each individual fluid system of the combination of an automatic transmission fluid system and a power steering fluid system (i.e the automatic transmission pump and the power steering pump).

With respect to the arguments about the automatic transmission pump and the power steering pump producing pressure at a relatively low pressure and a relatively high pressure respectively, the newly applied Hancock and Shelhart references disclose the operative pressures being relatively low and relatively high.

Applicant also argues, regarding claim 14, none of the references teach at least one pump supplying pressure high enough to operate a power steering gear and the at least one pump supplying pressure to a pressure reducer reducing the pressure to an automatic transmission. The disclosure of Borman

teaches a pump supplying pressure great enough for the desired operation of the fluid system (column 2 lines 28-45). So the teaching of Borman embodies a pump with high enough pressure for the steering gear and the automatic transmission. The combination of Borman with the teaching of a pressure reducer to supply the proper reduced operating pressure to the automatic transmission, as taught by Hayabuchi, meets the aforementioned limitations of claim 14.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

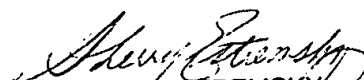
Genter et al. ('688), and Duthie ('882) disclose fluid filter systems.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Williams whose telephone number is 703-305-0607. The examiner can normally be reached on Mon.- Fri. from 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

EMW
April 22, 2003



SHERRY ESTREMSKY
PRIMARY EXAMINER
103681 4-28-03